



**Quarterly Progress Report #11  
October/November/December 2015**

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To:	Brian Kelly, U.S. EPA Christopher Black, U.S. EPA Lori Kozel, Tetra Tech Licia Yangouyan, City of Dearborn Alan Loebach, City of Dearborn Amina El-Husseini, City of Dearborn	Ref. No.:	048041
	<i>M.T.</i>		
From:	Glenn Turchan, Project Coordinator/kf/11	Date:	January 14, 2016
CC:	Colleen Liddell, Ford Bert Richnafsky, Weavertown Grant Gilezan, Dykema Gossett		
Re:	<b>Removal Action Quarterly Progress Report #11 (October, November, and December 2015) (Pursuant to Section 92 of the AOC and Section 3.2 of the Removal Action Work Plan)</b> <b>Former Dearborn Refining Site Dearborn, Michigan</b>		

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A. Due Date: January 15, 2016

B. Previous Activities – October/November/December

- Prepared and submitted Quarterly Progress Report #10 to the United States Environmental Protection Agency (U.S. EPA), Tetra Tech, Inc. (Tetra Tech), and the City of Dearborn for July, August, and September 2015 on October 14, 2015.
- Prepared and submitted the Scope of Work (SOW) for the proposed additional methane abatement measures (Methane SOW) to the U.S. EPA, Tetra Tech, and City of Dearborn on October 14, 2015.
- Received U.S. EPA approval of the Methane SOW on October 23, 2015.
- Prepared and submitted the design figures for the Passive Ventilation Trench (PVT)/additional wind turbines (consistent with the Methane SOW) and installation schedule to the U.S. EPA, Tetra Tech, and City of Dearborn on November 18, 2015. The PVT is an approximately 200 feet long gravel-filled trench with four passive vertical wind turbines.

- Completed the PVT/wind turbine installation, and waste characterization and off-Site disposal for the trench excavation from November 30, 2015 to December 22, 2015.
- Completed the October, November, and December 2015 quarterly Operation, Maintenance, and Monitoring (OMM) activities on November 30, 2015 (gas probe and methane monitoring) and January 8, 2016 (water levels, light non-aqueous phase liquid (LNAPL) levels, and gas probe monitoring). The inspection forms are presented in Attachment A. Water levels for the OMM wells are presented in Table 1. LNAPL observations for all Site and sentry wells are presented in Table 2. Gas probe pressure readings are presented in Table 3. The groundwater levels, LNAPL observations, and gas probe readings are presented on Figure 1. The methane monitoring results are presented in Table 4. The methane monitoring results are presented on Figure 2.
- Soil waste (approximately 368 tons) from below the Cover System was disposed at Waste Management Woodland Meadows Landfill, as approved by the U.S. EPA on December 10, 2015 (e.g., Comprehensive Environmental Response, Compensation, and Liability Act [CERCLA] approval pursuant to Paragraph 93 of the Administrative Settlement Agreement and Order on Consent [Agreement]).
- The City of Dearborn completed the quarterly inspection (see Attachment A).
- Completed the 4-week methane monitoring event consistent with the Methane SOW on January 8, 2016. The methane monitoring results are presented on Figure 3. The methane results at the northern property boundary and south of the Site have decreased following the installation of the PVT and additional wind turbines. Methane results at GP1-12 (northern most methane monitoring location) were reduced from 12.2 percent on November 30, 2015 (prior to the PVT and additional wind turbine installation) to 0.0 percent on January 8, 2016 (following the PVT and additional wind turbine installation). All four PVT wind turbine locations (GV1-15 through GV4-15) were 0.0 percent methane on January 8, 2016. Methane results south of the Site were reduced from 1.6 percent (MW14-12) on November 30, 2015 (prior to the PVT and additional wind turbine installation) to 0.4 percent (MW15-12) on January 8, 2016 (following the PVT and additional wind turbine installation). The remaining methane readings collected off Site on November 30, 2015 and January 8, 2016 were 0.0 percent.
- Coordinated with the City of Dearborn regarding an amendment to the recorded Restrictive Covenant (RC).

## C. Site Sample Analytical Data

- Air Monitoring:
  - Methane monitoring on various occasions
- Waste Compatibility Analyses:
  - None
- Waste Characterization Analyses:
  - Waste characterization (PVT excavation)

- Soil and Groundwater Investigation:
  - None
- ACM Abatement:
  - None

#### D. Document Submittals/Work Plan Modification

- Submittals:
  - Quarterly Progress Report #10 to the U.S. EPA, Tetra Tech, and City of Dearborn on October 14, 2015.
  - Methane SOW to the U.S. EPA, Tetra Tech, and City of Dearborn on October 14, 2015.
  - PVT/wind turbine design figures and installation schedule to the U.S. EPA, Tetra Tech, and City of Dearborn on November 18, 2015.
- Revision Requests:
  - None
- Work Plan Revisions:
  - None

#### E. Issues Identified

- New Issues and Planned Resolution:
  - None
- Previously Identified Issues Pending Resolution:
  - Methane vapor

Methane vapor has been detected on Site in the unsaturated zone. The additional Methane SOW (PVT and wind turbine installation) was approved by the U.S. EPA on October 23, 2015 and completed in November and December 2015. The 4-week methane monitoring event was completed on January 8, 2016. Methane was not detected at the monitoring location closest to the northern property boundary (GP1-12) on January 8, 2016. Methane detections at the sentry wells (located south of the Site) were all below 1.25 percent (the highest methane result was 0.4 percent) on January 8, 2016. The installation of the PVT and additional wind turbines appear to have decreased the methane present at the northern Site boundary and south of the Site. Methane will continue to be monitored quarterly.

#### F. Current/Projected Work – January/February/March 2016

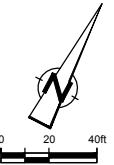
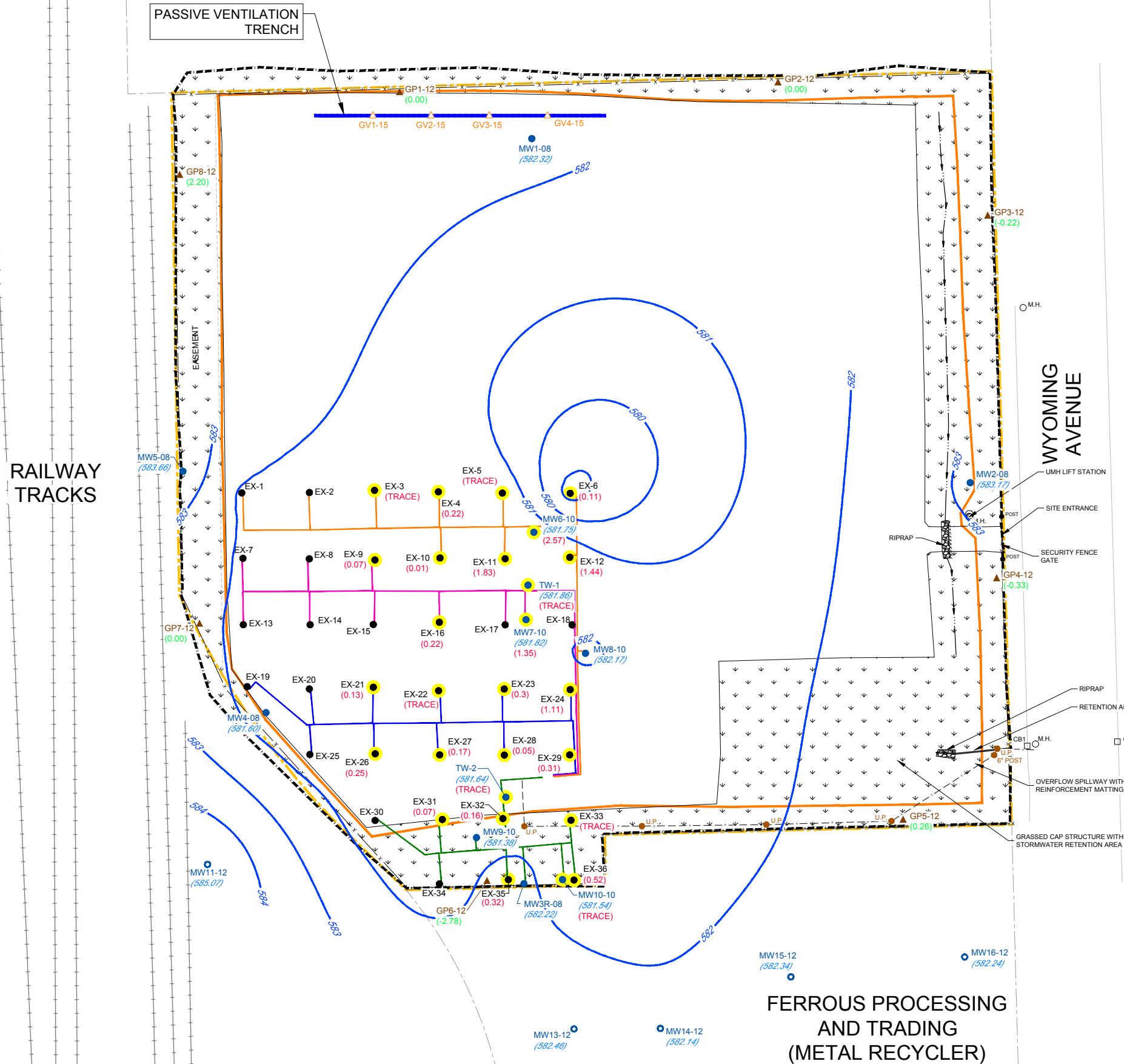
- Submit Quarterly Progress Report #11 for October/November/December 2015.
- Coordinate with the City of Dearborn regarding an amendment to the recorded Site RC.

- Evaluation of the effectiveness of the PVT and wind turbines in abating the methane concentrations.
- OMM activities, including:
  - Quarterly monitoring of water and LNAPL levels.
  - Quarterly methane and gas probe pressure monitoring.

## G. Status of Schedule

- Scheduling:
  - Schedules to adhere to the April 17, 2013 Project Schedule (Revision 11) as approved by the U.S. EPA on May 22, 2013.

# LIBERTY TRUCK SERVICES (TRUCK REPAIR)



LEGEND

PROPERTY BOUNDARY

LEGAL BOUNDARY

RAILWAY LINE

C.B. □ CATCH BASIN

U.M.H. LIFT STATION

GRASSED AREA

CAP LIMIT

SWALE

FENCELINE

40 MIL HDPE LINER LIMIT (LINER ANCHOR TRENCH LOCATION)

OVERHEAD POWER LINE

STORM CULVERT

MW3R-08 ● GROUNDWATER MONITORING WELL LOCATION

TW-1 ● TEST RECOVERY WELL LOCATION

EX-1 ● EXTRACTION WELL LOCATION

MW11-12 ● LNAPL SENTRY WELL LOCATION

GP1-12 ▲ GAS PROBE

GV1-15 △ GAS VENT

C.B. □ CATCH BASIN

M.H. ○ MANHOLE

U.P. ● UTILITY POLE

LINE 1

LINE 2

LINE 3

LINE 4

583 GROUNDWATER CONTOUR (ft AMSL)

582 GROUNDWATER ELEVATION (ft AMSL)

MPE MULTI-PHASE EXTRACTION

ft AMSL FEET ABOVE MEAN SEA LEVEL

(0.22) LIGHT NON-AQUEOUS PHASE LIQUID (LNAPL) THICKNESS OR SHEEN OBSERVED IN SPECIFIED WELL

(2.20) LNAPL THICKNESS OBSERVED IN SPECIFIED WELL (FEET)

(0.22) PRESSURE MEASUREMENT IN INCHES OF WATER COLUMN ( $\text{H}_2\text{O}$ ) (MEASUREMENTS COLLECTED USING A DIGITAL MANOMETER)

SOURCES

- SITE LAYOUT MAP WESTON (11/21/2006)
- FG SURVEY, CONESTOGA ROVERS & ASSOCIATES, INC., 04/16/2008 AND SURVEY MAY 02, 2011
- EG SURVEY JULY 30, 2012 AND OCTOBER 18, 2012
- CONESTOGA ROVER & ASSOCIATES (CRA) SURVEY DECEMBER 17, 2014, DATUM: SPCS MI NAD83, INT'L. MICHIGAN DEPARTMENT OF TRANSPORTATION (MDOT) - CONTINUOUSLY OPERATING REFERENCE STATION (CORS) NETWORK

SCALE VERIFICATION

THIS BAR MEASURES 1" ON ORIGINAL. ADJUST SCALE ACCORDINGLY.

FORMER DEARBORN REFINING SITE  
DEARBORN, MICHIGAN

OCTOBER, NOVEMBER, AND DECEMBER QUARTERLY PROGRESS REPORT

JANUARY 8, 2016 WATER LEVELS  
AND LNAPL OBSERVATIONS



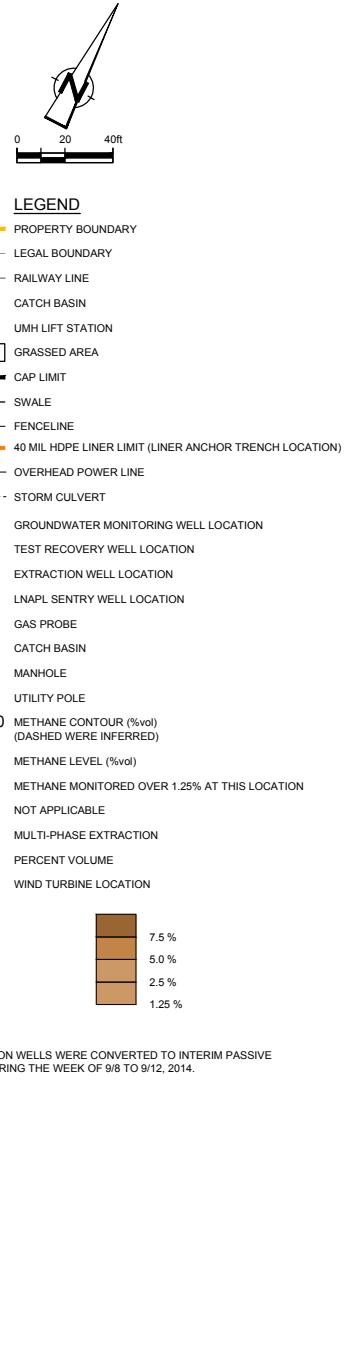
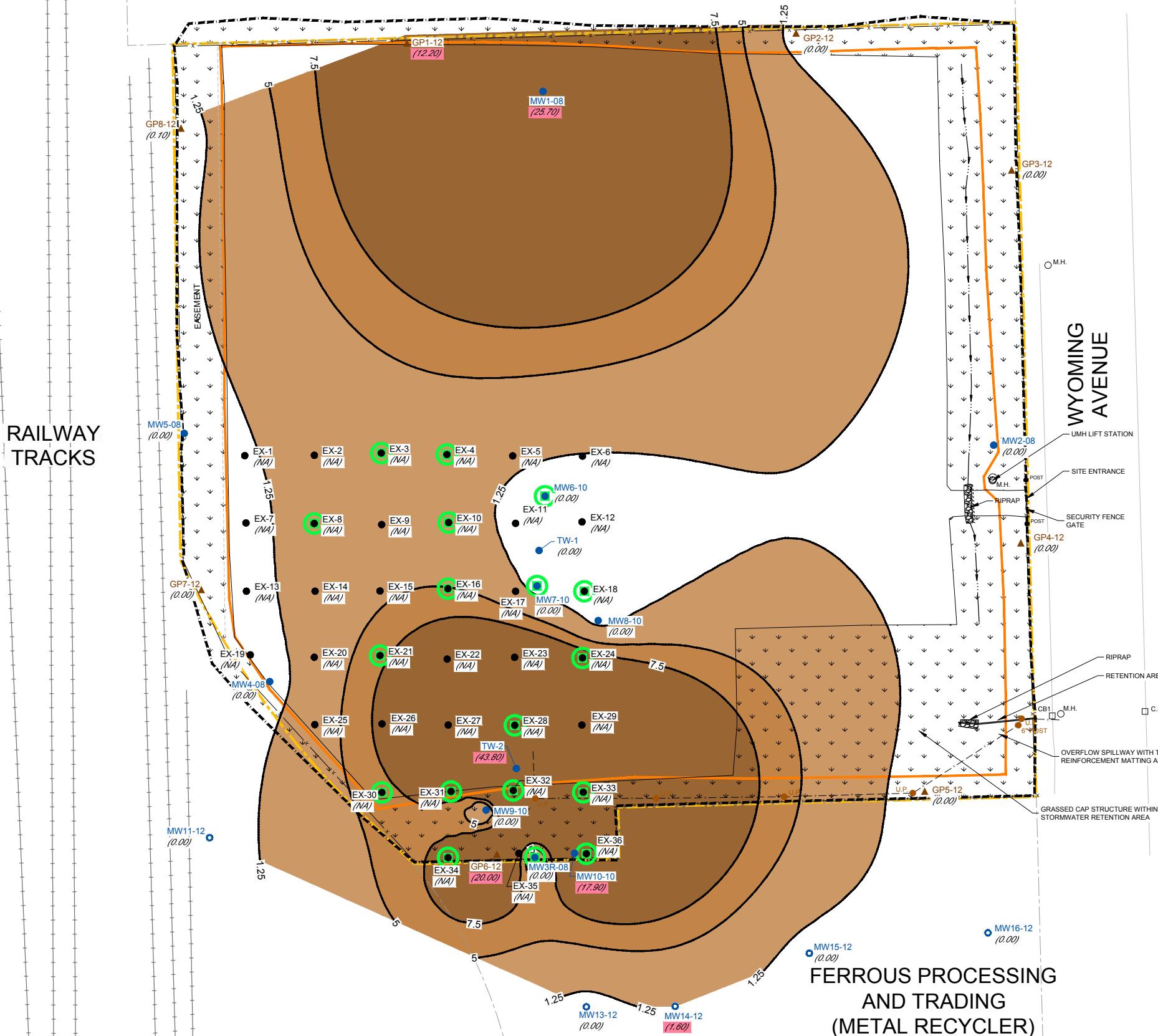
Source Reference:

Project Manager: G. TURCHAN	Reviewed By: M. BARRERA	Date: JANUARY 2016
Scale: AS SHOWN	Project No.: 48041-00	Report No.: PRES048

Drawing No.:  
figure 1

48041-00(PRES048)GN-WA001 JAN 13, 2016

## LIBERTY TRUCK SERVICES (TRUCK REPAIR)



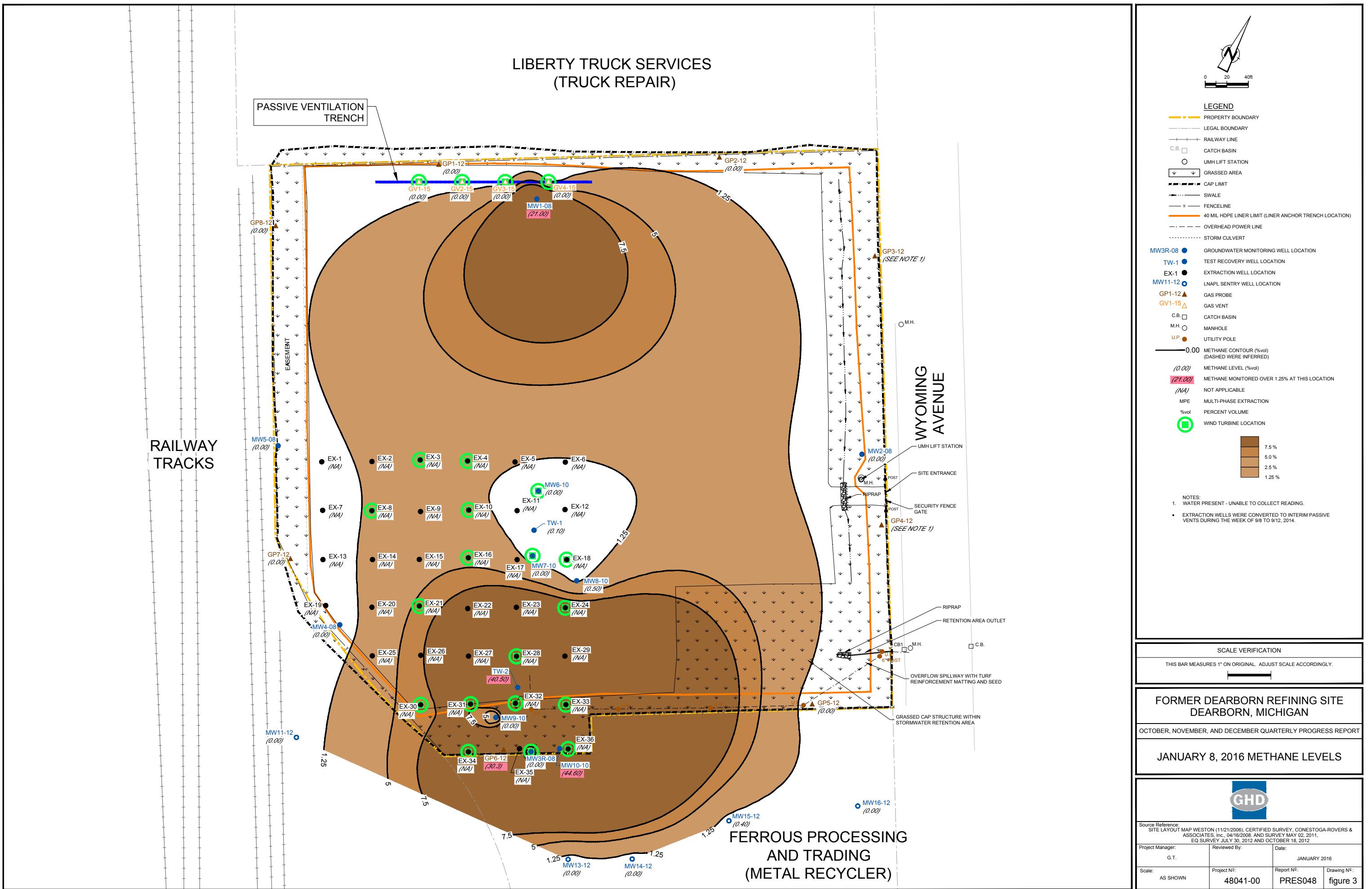


Table 1

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**Hydraulic Water Level Measurements**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW1-08</b>	4/24/2013	592.55	--	8.60	--	--	583.95	583.95
<b>MW1-08</b>	5/23/2013	592.55	--	8.62	--	--	583.93	583.93
<b>MW1-08</b>	6/20/2013	592.55	--	8.46	--	--	584.09	584.09
<b>MW1-08</b>	7/25/2013	592.55	--	7.80	--	--	584.75	584.75
<b>MW1-08</b>	8/29/2013	592.55	--	8.77	--	--	583.78	583.78
<b>MW1-08</b>	9/27/2013	592.55	--	9.76	--	--	582.79	582.79
<b>MW1-08</b>	10/22/2013	592.55	--	9.97	--	--	582.58	582.58
<b>MW1-08</b>	11/21/2013	592.55	--	10.61	--	--	581.94	581.94
<b>MW1-08</b>	12/11/2013	592.55	--	10.73	--	--	581.82	581.82
<b>MW1-08</b>	1/15/2014	592.55	--	10.47	--	--	582.08	582.08
<b>MW1-08</b>	2/26/2014	592.55	--	10.56	--	--	581.99	581.99
<b>MW1-08</b>	3/25/2014	592.55	--	9.89	--	--	582.66	582.66
<b>MW1-08</b>	5/5/2014	592.55	--	9.27	--	--	583.28	583.28
<b>MW1-08</b>	9/19/2014	592.55	--	7.98	--	--	584.57	584.57
<b>MW1-08</b>	12/11/2014	591.41	--	8.90	--	--	582.51	582.51
<b>MW1-08</b>	3/9/2015	591.41	--	9.86	--	--	581.55	581.55
<b>MW1-08</b>	6/1/2015	591.41	--	8.75	--	--	582.66	582.66
<b>MW1-08</b>	8/5/2015	591.41	--	8.56	--	--	582.85	582.85
<b>MW1-08</b>	1/8/2016	591.41	--	9.09	--	--	582.32	582.32
<b>MW2-08</b>	4/24/2013	591.76	--	7.09	--	--	584.67	584.67
<b>MW2-08</b>	5/23/2013	591.76	--	8.23	--	--	583.53	583.53
<b>MW2-08</b>	6/20/2013	591.76	--	8.18	--	--	583.58	583.58
<b>MW2-08</b>	7/25/2013	591.76	--	6.70	--	--	585.06	585.06
<b>MW2-08</b>	8/29/2013	591.76	--	8.04	--	--	583.72	583.72
<b>MW2-08</b>	9/27/2013	591.76	--	8.58	--	--	583.18	583.18
<b>MW2-08</b>	10/22/2013	591.76	--	8.91	--	--	582.85	582.85
<b>MW2-08</b>	11/21/2013	591.76	--	9.17	--	--	582.59	582.59
<b>MW2-08</b>	12/11/2013	591.76	--	9.10	--	--	582.66	582.66
<b>MW2-08</b>	1/15/2014	591.76	--	7.56	--	--	584.20	584.20
<b>MW2-08</b>	2/26/2014	591.76	--	7.85	--	--	583.91	583.91
<b>MW2-08</b>	3/25/2014	591.76	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW2-08</b>	5/5/2014	591.76	(1)	(1)	(1)	(1)	(1)	(1)
<b>MW2-08</b>	9/19/2014	591.76	--	7.80	--	--	583.96	583.96
<b>MW2-08</b>	12/11/2014	590.64	--	8.06	--	--	582.58	582.58
<b>MW2-08</b>	3/9/2015	590.64	--	8.72	--	--	581.92	581.92
<b>MW2-08</b>	6/1/2015	590.64	--	7.52	--	--	583.12	583.12
<b>MW2-08</b>	8/5/2015	590.64	--	8.47	--	--	582.17	582.17
<b>MW2-08</b>	1/8/2016	590.64	--	7.47	--	--	583.17	583.17
<b>MW3R-08</b>	4/24/2013	589.11	4.90	4.90	trace	584.21	584.21	584.21
<b>MW3R-08</b>	5/23/2013	589.11	6.51	6.51	trace	582.60	582.60	582.60
<b>MW3R-08</b>	6/20/2013	589.11	--	5.60	--	--	583.51	583.51
<b>MW3R-08</b>	7/25/2013	589.11	--	4.71	trace	--	584.40	584.40
<b>MW3R-08</b>	8/29/2013	589.11	--	7.34	trace	--	581.77	581.77
<b>MW3R-08</b>	9/27/2013	589.11	--	7.83	--	--	581.28	581.28
<b>MW3R-08</b>	10/22/2013	589.11	--	8.50	trace	--	580.61	580.61
<b>MW3R-08</b>	11/21/2013	589.11	--	8.67	trace	--	580.44	580.44
<b>MW3R-08</b>	12/11/2013	589.11	--	8.44	trace	--	580.67	580.67
<b>MW3R-08</b>	1/15/2014	589.11	--	6.78	--	--	582.33	582.33
<b>MW3R-08</b>	2/26/2014	589.11	--	7.15	--	--	581.96	581.96
<b>MW3R-08</b>	3/25/2014	589.11	--	6.19	--	--	582.92	582.92
<b>MW3R-08</b>	5/5/2014	589.11	--	6.13	--	--	582.98	582.98
<b>MW3R-08</b>	9/19/2014	589.11	--	5.39	--	--	583.72	583.72
<b>MW3R-08</b>	12/11/2014	587.87	--	6.08	trace	--	581.79	581.79
<b>MW3R-08</b>	3/9/2015	587.87	--	6.37	--	--	581.50	581.50
<b>MW3R-08</b>	6/1/2015	587.87	--	5.10	--	--	582.77	582.77
<b>MW3R-08</b>	8/5/2015	587.87	--	6.15	--	--	581.72	581.72
<b>MW3R-08</b>	1/8/2016	587.87	--	5.65	--	--	582.22	582.22
<b>MW4-08</b>	4/24/2013	591.76	--	8.78	--	--	582.98	582.98
<b>MW4-08</b>	5/23/2013	591.76	--	8.71	--	--	583.05	583.05
<b>MW4-08</b>	6/20/2013	591.76	--	8.15	--	--	583.61	583.61
<b>MW4-08</b>	7/25/2013	591.76	--	7.47	trace	--	584.29	584.29
<b>MW4-08</b>	8/29/2013	591.76	--	9.97	--	--	581.79	581.79
<b>MW4-08</b>	9/27/2013	591.76	--	10.21	--	--	581.55	581.55
<b>MW4-08</b>	10/22/2013	591.76	--	10.35	--	--	581.41	581.41
<b>MW4-08</b>	11/21/2013	591.76	--	11.42	--	--	580.34	580.34
<b>MW4-08</b>	12/11/2013	591.76	--	11.00	--	--	580.76	580.76
<b>MW4-08</b>	1/15/2014	591.76	--	10.12	--	--	581.64	581.64
<b>MW4-08</b>	2/26/2014	591.76	--	9.94	--	--	581.82	581.82
<b>MW4-08</b>	3/25/2014	591.76	--	8.84	--	--	582.92	582.92
<b>MW4-08</b>	5/5/2014	591.76	--	8.80	--	--	582.96	582.96
<b>MW4-08</b>	9/19/2014	591.76	--	7.72	--	--	584.04	584.04
<b>MW4-08</b>	12/11/2014	590.35	--	8.81	--	--	581.54	581.54
<b>MW4-08</b>	3/9/2015	590.35	--	9.72	--	--	580.63	580.63
<b>MW4-08</b>	6/1/2015	590.35	--	8.41	--	--	581.94	581.94
<b>MW4-08</b>	8/5/2015	590.35	--	8.82	--	--	581.53	581.53
<b>MW4-08</b>	1/8/2016	590.35	--	8.75	--	--	581.60	581.60
<b>MW5-08</b>	4/24/2013	588.26	--	1.07	--	--	587.19	587.19
<b>MW5-08</b>	5/23/2013	588.26	--	3.51	--	--	584.75	584.75

Table 1

**Hydraulic Water Level Measurements**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW5-08</b>	6/20/2013	588.26	--	3.05	--	--	585.21	585.21
<b>MW5-08</b>	7/25/2013	588.26	--	0.15	--	--	588.11	588.11
<b>MW5-08</b>	8/29/2013	588.26	--	3.75	--	--	584.51	584.51
<b>MW5-08</b>	9/27/2013	588.26	--	4.04	--	--	584.22	584.22
<b>MW5-08</b>	10/22/2013	588.26	--	4.54	--	--	583.72	583.72
<b>MW5-08</b>	11/21/2013	588.26	--	3.61	--	--	584.65	584.65
<b>MW5-08</b>	12/11/2013	588.26	--	4.36	--	--	583.90	583.90
<b>MW5-08</b>	1/15/2014	588.26	--	0.73	--	--	587.53	587.53
<b>MW5-08</b>	2/26/2014	588.26	--	3.00	--	--	585.26	585.26
<b>MW5-08</b>	3/25/2014	588.26	--	2.50	--	--	585.76	585.76
<b>MW5-08</b>	5/5/2014	588.26	--	3.17	--	--	585.09	585.09
<b>MW5-08</b>	9/19/2014	588.26	--	2.71	--	--	585.55	585.55
<b>MW5-08</b>	12/11/2014	587.11	--	3.71	--	--	583.40	583.40
<b>MW5-08</b>	3/9/2015	587.11	--	0.58	--	--	586.53	586.53
<b>MW5-08</b>	6/1/2015	587.11	--	0.70	--	--	586.41	586.41
<b>MW5-08</b>	8/5/2015	587.11	--	3.22	--	--	583.89	583.89
<b>MW5-08</b>	1/8/2016	587.11	--	3.45	--	--	583.66	583.66
<b>MW6-10</b>	4/24/2013	592.71	8.42	11.64	3.22	584.29	581.07	583.97
<b>MW6-10</b>	5/23/2013	592.71	9.18	12.55	3.37	583.53	580.16	583.19
<b>MW6-10</b>	6/20/2013	592.71	8.63	12.27	3.64	584.08	580.44	583.71
<b>MW6-10</b>	7/25/2013	592.71	--	10.09	trace	--	582.62	582.62
<b>MW6-10</b>	8/29/2013	592.71	--	11.92	trace	--	580.79	580.79
<b>MW6-10</b>	9/27/2013	592.71	10.85	12.57	1.72	581.86	580.14	581.69
<b>MW6-10</b>	10/22/2013	592.71	10.89	12.76	1.87	581.82	579.95	581.63
<b>MW6-10</b>	11/21/2013	592.71	12.32	12.72	0.40	580.39	579.99	580.35
<b>MW6-10</b>	12/11/2013	592.71	12.14	12.15	0.01	580.57	580.56	580.57
<b>MW6-10</b>	1/15/2014	592.71	--	12.54	trace	--	580.17	580.17
<b>MW6-10</b>	2/26/2014	592.71	10.88	10.95	0.07	581.83	581.76	581.82
<b>MW6-10</b>	3/25/2014	592.71	(2)	(2)	0.33 (2)	(2)	(2)	(2)
<b>MW6-10</b>	5/5/2014	592.71	(2)	(2)	2.13 (2)	(2)	(2)	(2)
<b>MW6-10</b>	9/19/2014	592.71	(2)	(2)	3.65 (2)	(2)	(2)	(2)
<b>MW6-10</b>	12/11/2014	591.56	9.54	12.27	2.73	582.02	579.29	581.75
<b>MW6-10</b>	3/9/2015	591.56	10.60	12.61	2.01	580.96	578.95	580.76
<b>MW6-10</b>	6/1/2015	591.56	9.28	12.00	2.72	582.28	579.56	582.01
<b>MW6-10</b>	8/5/2015	591.56	9.29	12.40	3.11	582.27	579.16	581.96
<b>MW6-10</b>	1/8/2016	591.56	9.55	12.12	2.57	582.01	579.44	581.75
<b>MW7-10</b>	4/24/2013	592.21	8.25	10.42	2.17	583.96	581.79	583.75
<b>MW7-10</b>	5/23/2013	592.21	9.05	10.61	1.56	583.16	581.60	583.01
<b>MW7-10</b>	6/20/2013	592.21	8.39	10.55	2.16	583.82	581.66	583.61
<b>MW7-10</b>	7/25/2013	592.21	--	10.30	trace	--	581.91	581.91
<b>MW7-10</b>	8/29/2013	592.21	--	11.44	trace	--	580.77	580.77
<b>MW7-10</b>	9/27/2013	592.21	10.61	11.02	0.41	581.60	581.19	581.56
<b>MW7-10</b>	10/22/2013	592.21	10.77	11.15	0.38	581.44	581.06	581.41
<b>MW7-10</b>	11/21/2013	592.21	--	11.92	trace	--	580.29	580.29
<b>MW7-10</b>	12/11/2013	592.21	--	11.57	trace	--	580.64	580.64
<b>MW7-10</b>	1/15/2014	592.21	11.22	11.37	0.15	580.99	580.84	580.98
<b>MW7-10</b>	2/26/2014	592.21	10.38	10.41	0.03	581.83	581.80	581.83
<b>MW7-10</b>	3/25/2014	592.21	9.36	9.78	0.42	582.85	582.43	582.81
<b>MW7-10</b>	5/5/2014	592.21	9.14	10.14	1.00	583.07	582.07	582.97
<b>MW7-10</b>	9/19/2014	592.21	7.77	10.98	3.21	584.44	581.23	584.12
<b>MW7-10</b>	12/11/2014	591.01	9.00	10.98	1.98	582.01	580.03	581.81
<b>MW7-10</b>	3/9/2015	591.01	10.08	11.43	1.35	580.93	579.58	580.80
<b>MW7-10</b>	6/1/2015	591.01	8.78	10.40	1.62	582.23	580.61	582.07
<b>MW7-10</b>	8/5/2015	591.01	8.83	10.86	2.03	582.18	580.15	581.98
<b>MW7-10</b>	1/8/2016	591.01	9.06	10.41	1.35	581.95	580.60	581.82
<b>MW8-10</b>	4/24/2013	592.24	--	8.68	--	--	583.56	583.56
<b>MW8-10</b>	5/23/2013	592.24	--	9.39	--	--	582.85	582.85
<b>MW8-10</b>	6/20/2013	592.24	--	8.74	--	--	583.50	583.50
<b>MW8-10</b>	7/25/2013	592.24	--	9.08	--	--	583.16	583.16
<b>MW8-10</b>	8/29/2013	592.24	--	11.13	--	--	581.11	581.11
<b>MW8-10</b>	9/27/2013	592.24	--	10.82	--	--	581.42	581.42
<b>MW8-10</b>	10/22/2013	592.24	--	11.00	--	--	581.24	581.24
<b>MW8-10</b>	11/21/2013	592.24	--	12.04	--	--	580.20	580.20
<b>MW8-10</b>	12/11/2013	592.24	--	11.67	--	--	580.57	580.57
<b>MW8-10</b>	1/15/2014	592.24	--	11.35	--	--	580.89	580.89
<b>MW8-10</b>	2/26/2014	592.24	--	10.54	--	--	581.70	581.70
<b>MW8-10</b>	3/25/2014	592.24	--	9.51	--	--	582.73	582.73
<b>MW8-10</b>	5/5/2014	592.24	--	9.33	--	--	582.91	582.91
<b>MW8-10</b>	9/19/2014	592.24	--	8.20	--	--	584.04	584.04
<b>MW8-10</b>	12/11/2014	591.18	--	9.27	--	--	581.91	581.91
<b>MW8-10</b>	3/9/2015	591.18	--	10.33	--	--	580.85	580.85
<b>MW8-10</b>	6/1/2015	591.18	--	9.10	--	--	582.08	582.08
<b>MW8-10</b>	8/5/2015	591.18	--	9.10	--	--	582.08	582.08
<b>MW8-10</b>	1/8/2016	591.18	--	9.01	--	--	582.17	582.17
<b>MW9-10</b>	4/24/2013	591.79	--	8.08	--	--	583.71	583.71
<b>MW9-10</b>	5/23/2013	591.79	--	9.20	--	--	582.59	582.59
<b>MW9-10</b>	6/20/2013	591.79	--	8.47	--	--	583.32	583.32

Table 1

**Hydraulic Water Level Measurements**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
<b>MW9-10</b>	7/25/2013	591.79	--	7.78	--	--	584.01	584.01
<b>MW9-10</b>	8/29/2013	591.79	--	10.09	--	--	581.70	581.70
<b>MW9-10</b>	9/27/2013	591.79	--	10.52	--	--	581.27	581.27
<b>MW9-10</b>	10/22/2013	591.79	--	11.26	--	--	580.53	580.53
<b>MW9-10</b>	11/21/2013	591.79	--	11.35	--	--	580.44	580.44
<b>MW9-10</b>	12/11/2013	591.79	--	11.12	--	--	580.67	580.67
<b>MW9-10</b>	1/15/2014	591.79	--	9.92	--	--	581.87	581.87
<b>MW9-10</b>	2/26/2014	591.79	--	10.08	--	--	581.71	581.71
<b>MW9-10</b>	3/25/2014	591.79	--	9.15	--	--	582.64	582.64
<b>MW9-10</b>	5/5/2014	591.79	--	9.07	--	--	582.72	582.72
<b>MW9-10</b>	9/19/2014	591.79	--	8.09	--	--	583.70	583.70
<b>MW9-10</b>	12/11/2014	590.43	--	9.12	--	--	581.31	581.31
<b>MW9-10</b>	3/9/2015	590.43	--	9.94	--	--	580.49	580.49
<b>MW9-10</b>	6/1/2015	590.43	--	8.39	--	--	582.04	582.04
<b>MW9-10</b>	8/5/2015	590.43	--	8.87	--	--	581.56	581.56
<b>MW9-10</b>	1/8/2016	590.43	--	9.05	--	--	581.38	581.38
<b>MW10-10</b>	4/24/2013	589.66	5.99	6.06	0.07	583.67	583.60	583.66
<b>MW10-10</b>	5/23/2013	589.66	7.10	8.04	0.94	582.56	581.62	582.47
<b>MW10-10</b>	6/20/2013	589.66	6.31	6.72	0.41	583.35	582.94	583.31
<b>MW10-10</b>	7/25/2013	589.66	5.62	6.24	0.62	584.04	583.42	583.98
<b>MW10-10</b>	8/29/2013	589.66	7.84	8.88	1.04	581.82	580.78	581.72
<b>MW10-10</b>	9/27/2013	589.66	8.42	8.47	0.05	581.24	581.19	581.23
<b>MW10-10</b>	10/22/2013	589.66	--	9.89	trace	--	579.77	579.77
<b>MW10-10</b>	11/21/2013	589.66	9.07	9.64	0.57	580.59	580.02	580.53
<b>MW10-10</b>	12/11/2013	589.66	8.98	9.45	0.47	580.68	580.21	580.63
<b>MW10-10</b>	1/15/2014	589.66	7.76	8.11	0.35	581.90	581.55	581.86
<b>MW10-10</b>	2/26/2014	589.66	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW10-10</b>	3/25/2014	589.66	--	7.07	--	--	582.59	582.59
<b>MW10-10</b>	5/5/2014	589.66	--	7.01	--	--	582.65	582.65
<b>MW10-10</b>	9/19/2014	589.66	5.95	6.04	0.09	583.71	583.62	583.70
<b>MW10-10</b>	12/11/2014	588.52	7.03	7.15	0.12	581.49	581.37	581.48
<b>MW10-10</b>	3/9/2015	588.52	7.95	8.50	0.55	580.57	580.02	580.52
<b>MW10-10</b>	6/1/2015	588.52	6.03	6.12	0.09	582.49	582.40	582.48
<b>MW10-10</b>	8/5/2015	588.52	6.85	7.32	0.47	581.67	581.20	581.63
<b>MW10-10</b>	1/8/2016	588.52	6.98	6.98	0.00	581.54	581.54	581.54
<b>MW11-12</b>	4/24/2013	588.15	--	1.65	--	--	586.50	586.50
<b>MW11-12</b>	5/23/2013	588.15	--	2.13	--	--	586.02	586.02
<b>MW11-12</b>	6/20/2013	588.15	--	2.08	--	--	586.07	586.07
<b>MW11-12</b>	7/25/2013	588.15	--	0.72	--	--	587.43	587.43
<b>MW11-12</b>	8/29/2013	588.15	--	2.82	--	--	585.33	585.33
<b>MW11-12</b>	9/27/2013	588.15	--	2.98	--	--	585.17	585.17
<b>MW11-12</b>	10/22/2013	588.15	--	3.31	--	--	584.84	584.84
<b>MW11-12</b>	11/21/2013	588.15	--	2.22	--	--	585.93	585.93
<b>MW11-12</b>	12/11/2013	588.15	--	3.02	--	--	585.13	585.13
<b>MW11-12</b>	1/15/2014	588.15	--	1.32	--	--	586.83	586.83
<b>MW11-12</b>	2/26/2014	588.15	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW11-12</b>	3/25/2014	588.15	--	1.19	--	--	586.96	586.96
<b>MW11-12</b>	5/5/2014	588.15	--	2.23	--	--	585.92	585.92
<b>MW11-12</b>	9/19/2014	588.15	--	1.75	--	--	586.40	586.40
<b>MW11-12</b>	12/11/2014	587.19	--	2.69	--	--	584.50	584.50
<b>MW11-12</b>	3/9/2015	587.19	(4)	(4)	(4)	(4)	(4)	(4)
<b>MW11-12</b>	6/1/2015	587.19	--	1.00	--	--	586.19	586.19
<b>MW11-12</b>	8/5/2015	587.19	--	1.62	--	--	585.57	585.57
<b>MW11-12</b>	1/8/2016	587.19	--	2.12	--	--	585.07	585.07
<b>MW13-12</b>	4/24/2013	587.95	--	4.27	--	--	583.68	583.68
<b>MW13-12</b>	5/23/2013	587.95	--	5.21	--	--	582.74	582.74
<b>MW13-12</b>	6/20/2013	587.95	--	4.61	--	--	583.34	583.34
<b>MW13-12</b>	7/25/2013	587.95	--	3.82	--	--	584.13	584.13
<b>MW13-12</b>	8/29/2013	587.95	--	6.05	--	--	581.90	581.90
<b>MW13-12</b>	9/27/2013	587.95	--	6.66	--	--	581.29	581.29
<b>MW13-12</b>	10/22/2013	587.95	--	7.25	--	--	580.70	580.70
<b>MW13-12</b>	11/21/2013	587.95	--	7.31	--	--	580.64	580.64
<b>MW13-12</b>	12/11/2013	587.95	--	7.21	--	--	580.74	580.74
<b>MW13-12</b>	1/15/2014	587.95	--	5.91	--	--	582.04	582.04
<b>MW13-12</b>	2/26/2014	587.95	(3)	(3)	(3)	(3)	(3)	(3)
<b>MW13-12</b>	3/25/2014	587.95	--	5.33	--	--	582.62	582.62
<b>MW13-12</b>	5/5/2014	587.95	--	5.22	--	--	582.73	582.73
<b>MW13-12</b>	9/19/2014	587.95	--	4.14	--	--	583.81	583.81
<b>MW13-12</b>	12/11/2014	586.78	--	5.37	--	--	581.41	581.41
<b>MW13-12</b>	3/9/2015	586.78	--	6.33	--	--	580.45	580.45
<b>MW13-12</b>	6/1/2015	586.78	--	1.41	--	--	585.37	585.37
<b>MW13-12</b>	8/5/2015	586.78	--	3.05	--	--	583.73	583.73
<b>MW13-12</b>	1/8/2016	586.78	--	4.32	--	--	582.46	582.46
<b>MW14-12</b>	4/24/2013	588.11	--	4.42	--	--	583.69	583.69
<b>MW14-12</b>	5/23/2013	588.11	--	5.31	--	--	582.80	582.80
<b>MW14-12</b>	6/20/2013	588.11	--	4.76	--	--	583.35	583.35
<b>MW14-12</b>	7/25/2013	588.11	--	4.20	--	--	583.91	583.91

Table 1

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**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
MW14-12	8/29/2013	588.11	--	6.16	--	--	581.95	581.95
MW14-12	9/27/2013	588.11	--	6.82	--	--	581.29	581.29
MW14-12	10/22/2013	588.11	--	7.33	--	--	580.78	580.78
MW14-12	11/21/2013	588.11	--	7.42	--	--	580.69	580.69
MW14-12	12/11/2013	588.11	--	7.39	--	--	580.72	580.72
MW14-12	1/15/2014	588.11	--	5.23	--	--	582.88	582.88
MW14-12	2/26/2014	588.11	(3)	(3)	(3)	(3)	(3)	(3)
MW14-12	3/25/2014	588.11	--	5.35	--	--	582.76	582.76
MW14-12	5/5/2014	588.11	--	5.22	--	--	582.89	582.89
MW14-12	9/19/2014	588.11	--	3.94	--	--	584.17	584.17
MW14-12	12/11/2014	586.81	--	5.32	--	--	581.49	581.49
MW14-12	3/9/2015	586.81	(4)	(4)	(4)	(4)	(4)	(4)
MW14-12	6/1/2015	586.81	--	4.35	--	--	582.46	582.46
MW14-12	8/5/2015	586.81	--	4.98	--	--	581.83	581.83
MW14-12	1/8/2016	586.81	--	4.67	--	--	582.14	582.14
MW15-12	4/24/2013	588.75	--	6.90	--	--	581.85	581.85
MW15-12	5/23/2013	588.75	--	3.87	--	--	584.88	584.88
MW15-12	6/20/2013	588.75	--	4.32	--	--	584.43	584.43
MW15-12	7/25/2013	588.75	--	3.71	--	--	585.04	585.04
MW15-12	8/29/2013	588.75	--	4.34	--	--	584.41	584.41
MW15-12	9/27/2013	588.75	--	5.26	--	--	583.49	583.49
MW15-12	10/22/2013	588.75	--	5.67	--	--	583.08	583.08
MW15-12	11/21/2013	588.75	--	6.17	--	--	582.58	582.58
MW15-12	12/11/2013	588.75	--	6.41	--	--	582.34	582.34
MW15-12	1/15/2014	588.75	--	5.98	--	--	582.77	582.77
MW15-12	2/26/2014	588.75	(3)	(3)	(3)	(3)	(3)	(3)
MW15-12	3/25/2014	588.75	--	5.48	--	--	583.27	583.27
MW15-12	5/5/2014	588.75	--	5.11	--	--	583.64	583.64
MW15-12	9/19/2014	588.75	--	3.97	--	--	584.78	584.78
MW15-12	12/11/2014	587.26	--	4.67	--	--	582.59	582.59
MW15-12	3/9/2015	587.26	(4)	(4)	(4)	(4)	(4)	(4)
MW15-12	6/1/2015	587.26	--	4.61	--	--	582.65	582.65
MW15-12	8/5/2015	587.26	--	4.60	--	--	582.66	582.66
MW15-12	1/8/2016	587.26	--	4.92	--	--	582.34	582.34
MW16-12	4/24/2013	587.87	--	2.57	--	--	585.30	585.30
MW16-12	5/23/2013	587.87	--	2.91	--	--	584.96	584.96
MW16-12	6/20/2013	587.87	--	2.39	--	--	585.48	585.48
MW16-12	7/25/2013	587.87	--	1.53	--	--	586.34	586.34
MW16-12	8/29/2013	587.87	--	2.41	--	--	585.46	585.46
MW16-12	9/27/2013	587.87	--	3.24	--	--	584.63	584.63
MW16-12	10/22/2013	587.87	--	3.78	--	--	584.09	584.09
MW16-12	11/21/2013	587.87	--	4.16	--	--	583.71	583.71
MW16-12	12/11/2013	587.87	--	4.20	--	--	583.67	583.67
MW16-12	1/15/2014	587.87	--	1.26	--	--	586.61	586.61
MW16-12	2/26/2014	587.87	--	3.27	--	--	584.60	584.60
MW16-12	3/25/2014	587.87	--	3.01	--	--	584.86	584.86
MW16-12	5/5/2014	587.87	--	2.53	--	--	585.34	585.34
MW16-12	9/19/2014	587.87	--	2.25	--	--	585.62	585.62
MW16-12	12/11/2014	586.67	--	2.70	--	--	583.97	583.97
MW16-12	3/9/2015	586.67	(4)	(4)	(4)	(4)	(4)	(4)
MW16-12	6/1/2015	586.67	--	1.91	--	--	584.76	584.76
MW16-12	8/5/2015	586.67	--	2.89	--	--	583.78	583.78
MW16-12	1/8/2016	586.67	--	4.43	--	--	582.24	582.24
TW-1	4/24/2013	592.43	--	8.53	--	--	583.90	583.90
TW-1	5/23/2013	592.43	9.35	9.35	trace	583.08	583.08	583.08
TW-1	6/20/2013	592.43	8.85	8.85	trace	583.58	583.58	583.58
TW-1	7/25/2013	592.43	8.77	8.81	0.04	583.66	583.62	583.66
TW-1	8/29/2013	592.43	--	11.43	--	--	581.00	581.00
TW-1	9/27/2013	592.43	10.84	10.87	0.03	581.59	581.56	581.59
TW-1	10/22/2013	592.43	10.93	10.98	0.05	581.50	581.45	581.50
TW-1	11/21/2013	592.43	--	12.20	--	--	580.23	580.23
TW-1	12/11/2013	592.43	--	11.91	trace	--	580.52	580.52
TW-1	1/15/2014	592.43	--	11.86	trace	--	580.57	580.57
TW-1	2/26/2014	592.43	--	10.67	trace	--	581.76	581.76
TW-1	3/25/2014	592.43	(2)	(2)	trace (2)	(2)	(2)	(2)
TW-1	5/5/2014	592.43	(2)	(2)	trace (2)	(2)	(2)	(2)
TW-1	9/19/2014	592.43	--	8.28	trace	--	584.15	584.15
TW-1	12/11/2014	591.22	--	9.41	trace	--	581.81	581.81
TW-1	3/9/2015	591.22	10.38	10.39	0.01	580.84	580.83	580.84
TW-1	6/1/2015	591.22	9.13	9.14	0.01	582.09	582.08	582.09
TW-1	8/5/2015	591.22	9.20	9.21	0.01	582.02	582.01	582.02
TW-1	1/8/2016	591.22	9.36	9.36	0.00	581.86	581.86	581.86
TW-2	4/24/2013	592.20	7.87	8.36	0.49	584.33	583.84	584.28
TW-2	5/23/2013	592.20	9.36	9.65	0.29	582.84	582.55	582.81
TW-2	6/20/2013	592.20	8.56	9.01	0.45	583.64	583.19	583.59
TW-2	7/25/2013	592.20	--	11.80	trace	--	580.40	580.40
TW-2	8/29/2013	592.20	--	10.36	--	--	581.84	581.84

Table 1

**Hydraulic Water Level Measurements**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well I.D.	Date	TOC Elevation (ft amsl)	DTP (ft BTOC)	DTW (ft BTOC)	LNAPL Thickness (ft)	Top of LNAPL Elevation (ft amsl)	Bottom of LNAPL/ Groundwater Elevation (ft amsl)	Corrected GW Elevation (ft amsl)
TW-2	9/27/2013	592.20	10.79	10.83	0.04	581.41	581.37	581.40
TW-2	10/22/2013	592.20	10.95	11.01	0.06	581.25	581.19	581.24
TW-2	11/21/2013	592.20	--	11.67	trace	--	580.53	580.53
TW-2	12/11/2013	592.20	11.35	11.44	0.09	580.85	580.76	580.84
TW-2	1/15/2014	592.20	10.23	10.28	0.05	581.97	581.92	581.96
TW-2	2/26/2014	592.20	10.38	10.39	0.01	581.82	581.81	581.82
TW-2	3/25/2014	592.20	9.43	9.44	0.01	582.77	582.76	582.77
TW-2	5/5/2014	592.20	9.32	9.53	0.21	582.88	582.67	582.86
TW-2	9/19/2014	592.20	8.18	9.01	0.83	584.02	583.19	583.93
TW-2	12/11/2014	590.92	9.30	9.91	0.61	581.62	581.01	581.56
TW-2	3/9/2015	590.92	10.20	10.67	0.47	580.72	580.25	580.67
TW-2	6/1/2015	590.92	8.66	8.90	0.24	582.26	582.02	582.23
TW-2	8/5/2015	590.92	9.07	9.38	0.31	581.85	581.54	581.82
TW-2	1/8/2016	590.92	9.28	9.28	0.00	581.64	581.64	581.64

Notes:

- ft Feet
- ft amsl Feet above mean sea level
- LNAPL Light Non-Aqueous Phase Liquid
- TOC Top of casing
- Not present
- trace Trace LNAPL present on oil/water interface probe
- (1) Damaged Well
- (2) The measuring point elevation (top of casing) needs to be re-verified
- (3) Unable to access due to snow and ice
- (4) Unable to measure level - area flooded

Table 2

**LNAPL Thickness (Feet) Observations Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well ID	EX-1	EX-2	EX-3	EX-4	EX-5	EX-6	EX-7	EX-8	EX-9	EX-10	EX-11	EX-12	EX-13	EX-14	EX-15	EX-16	EX-17	EX-18	EX-19	EX-20	EX-21	EX-22	EX-23	EX-24	EX-25	EX-26	EX-27
24-Apr-13	--	--	0.03	--	--	--	--	--	0.02	--	--	0.01	--	--	--	--	--	--	--	--	--	--	0.01	--	0.01	--	
23-May-13	--	--	0.17	--	0.04	--	--	--	0.24	--	0.31	0.78	--	--	--	0.09	--	--	--	--	0.16	0.36	0.03	1.52	--	0.50	--
20-Jun-13	--	--	0.12	--	trace	--	--	--	0.19	--	0.34	0.38	--	--	--	0.08	--	--	--	--	0.15	0.64	0.03	1.90	--	0.44	trace
25-Jul-13	--	--	0.15	trace	trace	--	--	--	--	0.57	--	--	--	--	--	0.15	trace	--	--	--	0.06	--	--	--	0.42	--	
29-Aug-13	--	--	0.13	0.06	3.99	--	--	--	0.59	--	--	--	--	--	--	0.03	0.10	0.03	--	--	0.38	--	0.50	0.48	--	0.46	--
27-Sep-13	--	--	0.23	0.17	--	--	--	--	0.39	0.16	0.13	1.60	--	--	--	0.22	0.14	--	--	--	0.11	0.08	0.30	0.69	--	0.52	0.31
22-Oct-13	--	--	0.24	0.23	0.52	--	--	--	0.50	0.22	0.34	1.97	--	--	--	0.28	0.14	--	--	--	0.19	0.08	0.50	1.07	--	0.65	0.66
21-Nov-13	--	--	0.19	0.10	--	--	--	--	0.10	0.12	--	0.02	--	--	--	0.05	0.01	--	--	--	0.03	0.20	0.09	2.35	--	0.19	0.04
11-Dec-13	--	--	0.03	--	--	--	--	--	0.01	--	0.01	--	--	--	--	--	trace	--	--	--	trace	0.11	0.02	1.02	--	0.64	--
15-Jan-14	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	trace	--	--	--	--	--	0.03	0.01	0.38	--	--	--
26-Feb-14	--	--	--	0.02	--	--	--	--	--	--	--	0.51	--	--	--	--	--	--	--	--	--	0.01	0.05	0.13	--	trace	0.07
25-Mar-14	--	--	--	--	--	--	--	--	--	--	--	0.50	--	--	--	--	--	--	--	--	--	--	0.03	0.42	--	--	--
5-May-14	--	--	trace	trace	0.01	--	--	--	0.01	--	trace	0.35	--	--	--	0.02	--	--	--	--	--	0.09	0.01	0.97	--	trace	--
19-Sep-14	--	--	0.06	trace	0.01	--	--	--	0.02	0.02	trace	0.26	--	--	--	0.42	trace	--	--	--	0.01	1.75	0.02	2.34	--	0.86	0.01
11-Dec-14	--	--	0.28	0.04	trace	--	--	--	0.06	0.16	0.67	2.57	--	--	--	0.63	--	--	--	--	0.15	0.46	0.46	1.1	--	0.53	0.08
9-Mar-15	--	--	0.39	0.30	0.04	--	--	--	0.20	0.28	1.30	1.90	--	--	--	0.42	--	--	--	--	0.15	0.37	0.56	0.96	--	0.68	0.20
1-Jun-15	--	--	0.02	0.02	trace	--	--	--	0.02	trace	1.23	2.20	--	--	--	0.34	--	--	--	--	0.07	0.09	0.32	0.97	--	0.03	--
5-Aug-15	--	--	trace	0.07	trace	0.02	--	--	0.02	0.12	1.75	2.56	--	--	--	0.84	--	--	--	--	0.02	trace	0.01	1.4	--	0.59	0.02
8-Jan-16	--	--	trace	0.22	trace	0.11	--	--	0.07	0.01	1.83	1.44	--	--	--	0.22	--	--	--	--	0.13	trace	0.3	1.11	--	0.25	0.17

Notes:

ft Feet

LNAPL Light Non-Aqueous Phase Liquid

-- LNAPL not present

trace Trace LNAPL present on oil/water interface probe

(1) Well damaged just below ground surface. Unable to collect levels

(2) Unable to measure level - area flooded

Table 2

**LNAPL Thickness (Feet) Observations Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Well ID	EX-28	EX-29	EX-30	EX-31	EX-32	EX-33	EX-34	EX-35	EX-36	MW1-08	MW2-08	MW3R-08	MW4-08	MW5-08	MW6-10	MW7-10	MW8-10	MW9-10	MW10-10	MW11-12	MW13-12	MW14-12	MW15-12	MW16-12	TW-1	TW-2	
<b>24-Apr-13</b>	--	0.29	--	0.01	0.13	--	--	--	--	trace	--	--	--	3.22	2.17	--	--	0.07	--	--	--	--	--	--	0.49		
<b>23-May-13</b>	--	--	--	0.03	--	--	--	--	--	trace	--	--	--	3.37	1.56	--	--	0.94	--	--	--	--	--	--	trace	0.29	
<b>20-Jun-13</b>	0.06	0.09	--	--	--	0.12	--	--	trace	--	--	--	--	3.64	2.16	--	--	0.41	--	--	--	--	--	--	trace	0.45	
<b>25-Jul-13</b>	0.17	0.03	--	trace	--	trace	--	--	0.01	--	--	trace	trace	--	trace	trace	--	--	0.62	--	--	--	--	--	0.04	trace	
<b>29-Aug-13</b>	trace	0.46	--	0.07	10.85	0.64	--	0.64	0.73	--	--	trace	--	--	trace	trace	--	--	1.04	--	--	--	--	--	--	--	
<b>27-Sep-13</b>	0.12	0.62	--	0.17	--	--	--	trace	0.01	--	--	--	--	1.72	0.41	--	--	0.05	--	--	--	--	--	--	0.03	0.04	
<b>22-Oct-13</b>	0.11	1.01	--	0.25	--	--	--	--	--	trace	--	--	--	1.87	0.38	--	--	trace	--	--	--	--	--	--	0.05	0.06	
<b>21-Nov-13</b>	0.16	0.22	--	0.03	0.14	0.01	--	0.08	0.36	--	--	trace	--	--	0.40	trace	--	--	0.57	--	--	--	--	--	--	trace	
<b>11-Dec-13</b>	0.12	0.03	--	trace	0.12	--	--	0.02	0.17	--	--	trace	--	--	0.01	trace	--	--	0.47	--	--	--	--	--	--	trace	0.09
<b>15-Jan-14</b>	0.11	0.02	--	--	0.01	--	--	trace	0.28	--	--	--	--	trace	0.15	--	--	0.35	--	--	--	--	--	--	trace	0.05	
<b>26-Feb-14</b>	0.11	0.06	--	--	0.05	--	--	0.01	0.02	--	--	--	--	0.07	0.03	--	--	--	--	--	--	--	--	--	trace	0.01	
<b>25-Mar-14</b>	--	trace	--	--	0.03	--	--	0.02	0.02	--	--	--	--	0.33	0.42	--	--	--	--	--	--	--	--	--	trace	0.01	
<b>5-May-14</b>	0.01	0.05	trace	0.04	--	--	--	0.06	0.04	--	(1)	--	--	--	2.13	1.00	--	--	--	--	--	--	--	--	trace	0.21	
<b>19-Sep-14</b>	0.22	trace	--	--	trace	trace	--	0.07	0.63	--	--	--	--	3.65	3.21	--	--	0.09	--	--	--	--	--	--	trace	0.83	
<b>11-Dec-14</b>	0.37	0.15	--	--	0.37	0.01	--	0.12	0.43	--	--	trace	--	--	2.73	1.98	--	--	0.12	--	--	--	--	--	--	trace	0.61
<b>9-Mar-15</b>	0.22	0.27	--	0.12	0.23	trace	--	0.41	0.46	--	--	--	--	2.01	1.35	--	--	0.55	(2)	--	(2)	(2)	(2)	(2)	0.01	0.47	
<b>1-Jun-15</b>	0.03	0.16	--	--	0.09	--	--	0.31	0.52	--	--	--	--	2.72	1.62	--	--	0.09	--	--	--	--	--	--	0.01	0.24	
<b>5-Aug-15</b>	0.2	0.33	--	--	0.06	trace	--	0.29	0.71	--	--	--	--	3.11	2.03	--	--	0.47	--	--	--	--	--	--	0.01	0.31	
<b>8-Jan-16</b>	0.05	0.31	--	0.07	0.16	trace	--	0.32	0.52	--	--	--	--	2.57	1.35	--	--	trace	--	--	--	--	--	--	0.01	trace	

Notes:

ft      Feet

LNAPL   Light Non-Aqueous Phase Liquid

--      LNAPL not present

trace    Trace LNAPL present on oil/water interface probe

(1)     Well damaged just below ground surface. Unable to collect levels

(2)     Unable to measure level - area flooded

Table 3

**Pressure Measurements**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Gas Probe ID	GP1-12 (inches H <sub>2</sub> O)	GP2-12 (inches H <sub>2</sub> O)	GP3-12 (inches H <sub>2</sub> O)	GP4-12 (inches H <sub>2</sub> O)	GP5-12 (inches H <sub>2</sub> O)	GP6-12 (inches H <sub>2</sub> O)	GP7-12 (inches H <sub>2</sub> O)	GP8-12 (inches H <sub>2</sub> O)
4/24/2013	-10.38	0.00	0.00	-0.59	15.10	-41.00	0.68	0.44
5/23/2013	-0.50	0.00	0.00	-0.14	0.96	-1.39	0.00	-9.50
6/20/2013	-0.13	0.00	0.00	0.82	13.70	0.00	0.50	0.00
7/25/2013	0.00	0.00	0.00	-4.29	2.68	-0.94	0.00	0.00
8/29/2013	0.00	0.00	0.00	0.00	3.13	-5.10	0.00	0.11
9/27/2013	0.00	0.00	0.00	-0.52	0.00	1.69	0.00	-5.63
10/22/2013	0.00	0.00	0.00	-0.19	0.00	-8.56	0.00	0.00
11/20/2013	0.00	0.00	0.00	0.00	0.00	-0.47	0.00	0.00
12/11/2013	0.00	0.00	0.00	-5.60	0.00	0.00	0.00	-5.60
1/15/2014	-0.19	<sup>(1)</sup>	0.00	-0.61	-3.42	<sup>(2)</sup>	6.10	0.38
2/26/2014	<sup>(1)</sup>							
3/24/2014	17.70	0.00	0.85	-4.54	-3.26	<sup>(3)</sup>	-5.75	0.00
5/5/2014	-3.53	0.00	0.00	-2.23	-3.01	-5.78	0.63	-0.48
8/15/2014	0.51	0.00	-0.66	-0.21	-2.83	-3.33	-1.02	0.00
9/19/2014	0.00	0.00	0.14	-1.72	-0.82	-1.09	-0.67	0.00
12/11/2014	0.00	4.45	-1.82	-6.18	0.00	-2.60	0.00	-4.46
3/9/2015	-0.02	0.00	-1.25	<sup>(3,4)</sup>	-2.00	0.00	0.11	-2.00
6/1/2015	-0.09	0.00	0.00	0.44	-3.30	-5.71	0.50	0.18
8/5/2015	0.00	0.00	0.00	0.00	0.00	-0.32	0.00	-0.50
11/30/2015	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.04
1/8/2016	0.00	0.00	-0.22	-0.33	0.26	-2.78	0.00	2.20

Notes:

Pressure measurements in inches of water column (H<sub>2</sub>O)

Pressure measurements collected using a digital manometer

<sup>(1)</sup> Unable to locate due to snow and ice

<sup>(2)</sup> Unable to access due to ice

<sup>(3)</sup> Flooded - unable to collect reading

<sup>(4)</sup> Valved was open before collecting reading

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Location ID	4/26/2013				4/29/2013				5/7/2013				6/5/2013				8/30/2013				9/26/2013				10/23/2013				
	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	
	nm	nm	nm	nm	nm	nm																							
GP-1	0.0	2.2	17.2	3	nm	nm	nm	nm	0.1	9.1	0.2	2	0.0	3.3	16.3	2	0.0	8.0	0.3	2	0.0	8.2	3.8	2	0.0	8.2	3.8	2	
GP-2	0.0	1.9	16.2	3	nm	nm	nm	nm	0.0	5.0	5.2	2	0.0	5.2	5.5	2	0.0	6.1	10.4	2	0.0	6.3	12.9	2	0.0	6.3	12.9	2	
GP-3	0.0	0.0	20.7	3	nm	nm	nm	nm	0.0	7.9	1.9	2	0.0	13.4	1.6	2	0.0	13.1	1.2	2	0.0	11.5	2.4	2	0.0	11.5	2.4	2	
GP-4	screen flooded				nm	nm	nm	nm	0.0	0.8	17.0	2	0.0	10.2	8.0	2	0.0	9.7	6.7	2	0.0	6.2	13.5	2	0.0	6.2	13.5	2	
GP-5	screen flooded				nm	nm	nm	nm	0.0	0.9	16.3	2	0.0	3.0	14.9	2	0.0	7.2	2.6	2	0.0	7.3	4.2	2	0.0	7.3	4.2	2	
GP-6	screen flooded				nm	nm	nm	nm	8.3	4.5	0.1	2	nm				nm				0.0				0.0				
GP-7	screen flooded				nm	nm	nm	nm	0.0	7.7	1.4	2	0.0	11.4	8.8	2	0.0	11.3	0.2	2	0.0	12.2	3.0	2	0.0	12.2	3.0	2	
GP-8	0.0	0.0	20.9	3	nm	nm	nm	nm	0.0	1.7	17.7	2	0.0	0.0	20.0	2	0.0	1.8	16.0	2	0.0	0.1	20.4	4	0.0	0.1	20.4	4	
MPE Exhaust	<0.1	0.0	20.8	3	nm	nm	nm	nm	nm																				
EX-1	nm				0.0	3.7	4.5	2	nm	0.0	6.4	2.7	2	0.0	5.9	8.5	2	0.0	10.6	0.4	2	0.0	5.8	7.0	2	0.0	5.8	7.0	2
EX-2	nm				0.0	0.3	17.8	2	nm	0.0	2.7	11.6	2	0.0	0.1	20.2	2	0.0	9.9	0.1	2	0.0	6.2	4.6	2	0.0	6.2	4.6	2
EX-3 <sup>(7)</sup>	0.0	0.0	21.1	0	1.0	2.8	1.4	2	nm	7.2	4.2	0.0	2	2.2	3.9	5.2	2	4.9	9.5	0.0	2	6.7	8.6	0.1	2	6.7	8.6	0.1	2
EX-4 <sup>(7)</sup>	nm				4.5	0.3	11.5	2	nm	16.1	0.8	0.0	2	9.7	0.8	3.4	2	10.6	4.4	0.7	2	22.2	2.4	0.1	2	22.2	2.4	0.1	2
EX-5	nm				29.8	0.3	6.6	2	nm	11.1	3.9	0.5	2	21.8	5.0	1.6	2	11.8	6.5	0.0	2	25.9	7.6	0.0	2	25.9	7.6	0.0	2
EX-6	nm				2.3	2.5	0	0	nm	5.0	2.6	0.1	2	0.0	0.0	20.6	2	1.4	3.6	1.7	2	4.2	2.8	0.3	2	4.2	2.8	0.3	2
EX-7	nm				0.0	0.4	19.2	2	nm	0.0	4.5	6.4	2	0.0	0.7	17.4	2	0.0	10.3	0.0	2	0.0	8.5	0.3	2	0.0	8.5	0.3	2
EX-8 <sup>(7)</sup>	nm				0.0	0.0	20.3	2	nm	0.0	2.2	10.5	2	0.2	1.7	14.2	2	0.6	7.7	0.0	2	1.2	8.5	0.0	2	1.2	8.5	0.0	2
EX-9	nm				3.2	3.6	0	2	nm	9.1	4.4	0.1	2	5.1	3.6	7.3	2	9.6	5.2	0.0	2	13.1	5.6	0.0	2	13.1	5.6	0.0	2
EX-10 <sup>(7)</sup>	nm				1.9	1.1	5.9	2	nm	0.0	0.3	18.7	2	0.0	0.0	20.9	2	0.1	1.8	16.0	2	2.9	1.6	16.3	2	2.9	1.6	16.3	2
EX-11	nm				18.7	0.0	13.8	2	nm	25.5	1.9	1.9	2	0.0	0.0	20.8	2	9.8	1.5	0.0	2	15.2	2.9	0.6	2	15.2	2.9	0.6	2
EX-12	nm				0.3	2.4	5.9	2	nm	3.4	3.2	0.3	2	0.0	0.0	20.8	2	5.6	7.7	0.0	2	6.6	6.8	2.2	2	6.6	6.8	2.2	2
EX-13	nm				0.0	2.6	2.2	2	nm	0.0	5.0	1.7	2	0.0	3.8	16.6	2	0.0	9.5	0.0	2	0.0	5.4	10.7	2	0.0	5.4	10.7	2
EX-14	nm				0.0	1.5	10.4	2	nm	0.5	3.1	0.0	2	0.4	3.7	8.3	2	0.6	9.0	0.0	2	0.0	8.6	1.0	2	0.0	8.6	1.0	2
EX-15	nm				nm				nm	0.8	5.8	0.0	2	1.0	2.0	10.8	2	3.7	6.1	0.0	2	0.1	1.1	16.5</					

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Location ID	11/20/2013				12/16/2013				1/16/2014				2/26/2014				3/24/2014				5/5/2014				8/15/2014			
	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)				
GP-1	0.0	0.7	19.8	2	0.0	1.0	19.8	2	nm	nm	nm	nm	0.0	1.0	13.1	2	0.0	5.3	2.5	2	7.4	7.9	0.0	2				
GP-2	0.3	3.6	16.0	2	0.0	3.2	14.7	2	nm	nm	nm	nm	0.0	1.9	10.5	2	0.0	6.5	4.5	2	0.0	6.5	4.5	2				
GP-3	0.0	8.3	3.9	2	0.0	6.6	6.1	2	nm	nm	nm	nm	0.0	0.2	19.6	2	nm	nm	nm	nm	nm	nm	nm	nm				
GP-4	0.0	0.0	20.7	2	0.0	0.0	20.1	2	nm	nm	nm	nm																
GP-5	0.0	2.6	15.4	2	0.0	2.4	17.0	2	0.0	1.2	19.2	2	nm	nm	nm	nm	0.0	5.4	2.1	2	0.0	8.8	1.4	2				
GP-6	nm	nm	nm	nm																								
GP-7	0.3	1.2	16.8	2	0.0	5.4	13.7	2	0.1	3.4	4.6	2	nm	nm	nm	nm	0.0	3.9	0.7	2	nm	nm	nm	nm	nm			
GP-8	0.0	8.9	11.1	4	0.0	6.0	5.2	2	0.0	6.0	4.4	2	nm	nm	nm	nm	0.0	3.0	15.2	2	0.0	3.6	6.2	2	0.0	3.6	6.2	2
MPE Exhaust	nm	nm	nm	nm	nm																							
EX-1	0.0	2.8	17.5	2	0.0	3.8	13.8	2	0.0	4.8	6.0	2	0.0	7.4	1.4	2	0.0	6.2	0.7	2	0.0	8.7	0.0	2	2.4	10.1	0.0	2
EX-2	0.0	9.7	3.1	2	0.0	7.2	6.2	2	0.0	4.2	12.5	2	0.0	8.3	0.0	2	0.5	7.1	0.0	2	1.1	6.4	0.2	2	9.2	5.1	0.0	2
EX-3 <sup>(7)</sup>	1.1	3.9	0.1	2	0.0	0.1	19.9	2	0.0	0.1	19.5	2	0.2	7.1	2.3	2	0.2	5.0	5.3	2	0.0	1.0	17.7	2	9.1	1.9	4.4	2
EX-4 <sup>(7)</sup>	0.8	6.4	1.3	2	4.9	2.7	2.6	2	0.0	0.0	20.2	2	0.0	4.0	4.0	2	0.0	3.4	3.9	2	0.4	2.5	6.9	2	12.9	3.5	2.4	2
EX-5	0.0	0.2	18.4	2	2.9	2.5	11.6	2	0.0	0.0	20.1	2	0.0	0.2	19.7	2	0.0	3.1	5.0	2	0.0	1.6	14.1	2	15.2	1.2	12.2	2
EX-6	0.0	0.6	15.5	2	0.0	0.0	20.2	2	4.2	2.4	1.8	2	1.7	1.6	0.0	2	2.6	1.4	0.0	2	2.6	1.6	0.0	2	7.0	2.0	0.0	2
EX-7	0.0	5.1	10.6	2	0.0	0.0	20.3	2	0.0	0.0	20.0	2	0.0	7.9	0.0	2	0.1	7.0	0.0	2	0.3	6.7	0.0	2	3.4	6.2	0.4	2
EX-8 <sup>(7)</sup>	0.3	10.7	0.0	2	0.0	0.0	20.1	2	0.0	0.0	19.8	2	0.0	6.2	1.8	2	0.0	5.9	0.0	2	1.3	5.4	0.8	2	12.4	5.4	0.0	2
EX-9	1.3	9.3	0.0	2	1.4	5.5	0.0	2	1.0	5.2	0.0	2	1.6	5.4	0.0	2	3.9	4.0	0.0	2	5.3	3.7	0.0	2	14.7	4.9	0.0	2
EX-10 <sup>(7)</sup>	0.4	7.5	1.9	2	1.1	1.7	13.9	2	0.0	0.0	20.2	2	0.0	0.9	17.6	2	1.7	6.7	0.0	2	1.0	4.0	5.0	2	11.9	6.2	1.9	2
EX-11	0.8	0.2	14.1	2	0.0	0.0	20.4	2	0.0	0.0	20.2	2	0.4	7.8	0.0	2	0.2	1.0	16.0	2	0.0	0.9	17.8	2	0.0	0.0	20.7	2
EX-12	0.3	3.7	2.3	2	0.0	0.1	19.8	2	0.5	1.1	15.8	2	0.0	1.8	16.4	2	0.0	2.8	4.4	2	0.0	3.2	11.5	2	0.0	0.0	20.8	2
EX-13	0.0	4.2	14.4	2	0.0	2.1	16.4	2	0.0	0.7	19.8	2	0.0	7.2	2.1	2	0.0	7.0	1.1	2	0.2	6.7	0.2	2	2.2	5.8	0.0	2
EX-14	0.0	9.6	3.1	2	0.0	11.7	0.4	2	0.3	3.9	14.0	2	0.0	5.5	0.0	2	0.7	4.5	0.0	2	1.3	3.8	0.0	2	9.7	3.3	0.0	2
EX-15	0.1	4.5	4.1	2	0.0	0.3	19.3	2	0.0	0.1	19.4	2	0.0	2.2	13.2	2	0.4	4.3	0.3	2	1.9	3.5	0.0	2	7.2	2.4	0.7	2
EX-16 <sup>(7)</sup>	2.0	10.3	0.1	2	0.9	11.8	0.3	2	0.1	1.7	16.2	2	1.6	7.0	0.0	2	4.4	6.1	0.0	2	6.2	5.9	0.0	2	20.6	7.1	0.2	2
EX-17	13.3	5.2	0.1	2	6.0	5.2	1.3	2	3.2	5.8	0.6	2	3.6	3.8	0.0	2	6.7	2.4	0.0	2	8.0	3.2	0.0	2	22.4	4.1	0.1	2
EX-18 <sup>(7)</sup>	53.6	0.3	0.0	2	9.5	1.8	0.0	2	2.3	1.9	0.8	2	4.3	1.0	0.0	2	6.3	0.4	0.0	2	8.0	0.3	0.0	2	27.3	0.2	0.0	2
EX-19	0.0	3.9	15.8	2	0.0	0.0	20.5	2	0.0	0.0	19.0	2	0.0	6.1	4.0	2	0.1	5.4	0.5	2	0.1	4.3	0.0	2	0.8	5.5	0.0	2
EX-20	0.2	6.6	2.6	2	0.0	0.0	20.3	2	0.0	0.0	18.8	2	0.0	1.3	1													

**Table 4**

**Methane Monitoring  
Quarterly Progress Report #11 (October, November, and December 2015)  
Former Dearborn Refining Site  
Dearborn, Michigan**

## Notes:

- (1) Cleaned, to be demobilized from Site
  - (2) To be monitored during third quarter monitoring event consistent with the Operation, Maintenance, and Monitoring (OMM) Plan
  - (3) Could not be measured due to water present
  - (4) Not included in the OMM Plan. Additional results were presented on Quarterly Progress Report figures.
  - (5) Not included in the OMM Plan. Initially monitored on June 10, 2015
  - (6) Valve was closed on June 10, 2015
  - (7) Wind turbines installed on 8/27/15
  - (8) Pump stopped due to flow restriction
  - (9) Gas Vents associated with the Passive Ventilation Trench installed on 12/4/15
    - MPE system running in advance of and/or during methane monitoring on 4/26/13, 4/29/13 and 8/30/13
    - Extraction wells were converted to passive gas vents during the week of 9/8 to 9/12, 2014
  - nm = not measured on this date

Table 4

**Methane Monitoring**  
**Quarterly Progress Report #11 (October, November, and December 2015)**  
**Former Dearborn Refining Site**  
**Dearborn, Michigan**

Location ID	8/5/2015				8/7/2015				8/27/2015				9/25/2015				11/30/2015				1/8/2016			
	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)	CH <sub>4</sub> (%vol)	CO <sub>2</sub> (%vol)	O <sub>2</sub> (%vol)	Purge Time (min)
GP-1	14.2	7.1	0.2	2	16.1	6.8	0.0	2	15.6	7.0	0.0	2	14.7	7.1	0.0	2	12.2	4.8	0.0	2	0.0	5.3	0.1	2
GP-2	0.0	8.6	6.1	2	0.0	8.1	7.7	2	0.0	7.7	10.8	2	0.0	7.8	11.1	2	0.0	4.7	14.2	2	0.0	3.5	13.2	2
GP-3	0.0	13.0	3.0	2	0.0	13.6	3.1	2	0.0	14.0	3.2	2	0.0	12.5	5.3	2	0.0	6.8	6.6	2	nm <sup>(3)</sup>			
GP-4	0.0	13.6	5.3	2	0.0	12.9	6.4	2	0.0	10.9	7.5	2	0.0	8.4	14.5	2	0.0	3.2	12.7	2	nm <sup>(3)</sup>			
GP-5	0.0	9.4	2.0	2	0.0	8.8	0.8	2	0.0	9.0	3.0	2	0.0	9.0	3.0	2	0.0	8.1	0.5	2	0.0	6.6	1.1	2
GP-6	29.9	9.5	0.5	20 seconds <sup>(8)</sup>	32.3	9.1	0.0	2	33.3	9.1	0.0	2	32.8	8.7	0.0	2	20.0	7.1	0.0	2	30.3	5.6	2.4	30 seconds <sup>(8)</sup>
GP-7	0.0	16.6	0.8	2	0.0	15.8	0.9	2	0.0	15.6	0.0	2	0.0	16.4	2.7	2	0.0	13.1	1.0	2	0.0	9.8	4.2	2
GP-8	0.0	7.3	6.8	2	0.0	7.2	10.8	20 seconds <sup>(8)</sup>	0.0	5.0	3.9	30 seconds <sup>(8)</sup>	0.0	5.0	2.4	30 seconds <sup>(8)</sup>	0.1	4.3	2.3	2	0.0	4.3	2.0	2
MPE Exhaust	nm <sup>(1)</sup>				nm <sup>(1)</sup>				nm <sup>(1)</sup>															
EX-1	0.0	4.0	11.4	2	nm				nm				nm				nm				nm			
EX-2	4.7	6.4	1.6	2	nm				nm				nm				nm				nm			
EX-3 <sup>(7)</sup>	4.1	6.5	5.4	2	nm				nm				nm				nm				nm			
EX-4 <sup>(7)</sup>	7.0	5.9	4.0	2	nm				nm				nm				nm				nm			
EX-5	7.3	5.0	6.9	2	nm				nm				nm				nm				nm			
EX-6	12.8	5.7	0.0	2	nm				nm				nm				nm				nm			
EX-7	3.9	5.5	0.0	2	nm				nm				nm				nm				nm			
EX-8 <sup>(7)</sup>	11.2	6.9	0.0	2	nm				nm				nm				nm				nm			
EX-9	10.3	6.4	3.9	2	nm				nm				nm				nm				nm			
EX-10 <sup>(7)</sup>	4.4	4.0	9.7	2	nm				nm				nm				nm				nm			
EX-11	0.0	0.0	19.5	2	nm				nm				nm				nm				nm			
EX-12	2.0	1.1	18.5	2	nm				nm				nm				nm				nm			
EX-13	0.6	7.5	0.0	2	nm				nm				nm				nm				nm			
EX-14	5.3	4.0	2.4	2	nm				nm				nm				nm				nm			
EX-15	5.4	5.1	0.5	2	nm				nm				nm				nm				nm			
EX-16 <sup>(7)</sup>	7.4	6.2	4.0	2	nm				nm				nm				nm				nm			
EX-17	8.9	1.2	16.0	2	nm				nm				nm				nm				nm			
EX-18 <sup>(7)</sup>	0.7	3.1	8.3	2	nm				nm															

## Attachment A Inspection Logs

## COVER SYSTEM INSPECTION LOG

**PROJECT NAME:** Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan      **LOCATION:** Dearborn, Michigan

**PROPERTY OWNER:** City of Dearborn

**PROJECT NUMBER:** 48041

**DATE:**

1 | 2 | 1 | 6 | 1 | 5  
(MM DD YY)

**INSPECTOR(S):** Alan P Loebach, P.E., City of Dearborn

<b>Item</b>	<b>Inspect For</b>	<b>Action Required</b>	<b>Comments</b>
1	<b>Cover System<sup>(1)</sup></b>		
<input checked="" type="checkbox"/>	Surface Conditions	- exposed geotextile fabric - erosion and/or sloughing - ponding of water - established vegetative ground cover - subsidence or settlement	No issues No issues No issues No issues No issues
<input checked="" type="checkbox"/>			
2.	<b>Stormwater Retention Area and Associated Swale, Grass-lined Ditch, and Berms<sup>(1)</sup></b>		
<input checked="" type="checkbox"/>	Stormwater Management	- sediment accumulation ( 56 inches in Retention Area) - debris construction - visible signs of erosion - established vegetation - signs of seepage through berms - accumulation of trash	No issues No issues No issues No issues No issues No issues
<input checked="" type="checkbox"/>			
3.	<b>Other Site Systems<sup>(1)</sup></b>		
<input checked="" type="checkbox"/>	Site Fencing	- integrity of fence - integrity of gates - integrity of locks - placement and condition of signs	City will pursue with owner to north newly damaged pole, no breach No issues No issues No issues
<input checked="" type="checkbox"/>			

**Notes:** Original fence damage was repaired but new damage has occurred since last report

- = OK
- = Issues Present

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.  
Photographs attached.

## TREATED WATER CONVEYANCE PIPE (UNDER GRAVEL DRIVEWAY) INSPECTION LOG

PROJECT NAME:	Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan	LOCATION:	Dearborn, Michigan
PROPERTY OWNER:	City of Dearborn		
PROJECT NUMBER:	48041	DATE:	1   2   1   6   1   5 (MM DD YY)
INSPECTOR(S):	<u>Al Loebach, P.E., City of Dearborn</u>		

Item	Inspect For	Action Required	Comments
1	Pipe <sup>(1)</sup>		
	Condition/ Functionality	<ul style="list-style-type: none"> <li>- integrity</li> <li>- sediment accumulation</li> <li>- other blockage</li> </ul>	No issues No issues No issues

Notes:

 = OK

 = Issues Present

(1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.  
Photographs attached.

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS:

C. Bondy

SUPERVISOR:

C. Bondy

DATE OF INSPECTION:

01/10/81/16

To

(MM DD YY)

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
MW1-08	n/a	✓	n/a	✓	no	9.09'	25.67'	
MW2-08	n/a	✓	n/a	✓	no	7.47'	10.12'	
MW3R-08	n/a	✓	n/a	✓	no	5.65'	17.90'	
MW4-08	n/a	✓	n/a	✓	no	8.75'	19.34'	
MW5-08	n/a	✓	n/a	✓	yes	3.45'	9.25'	
MW6-10	n/a	✓	n/a	✓	—	12.12'	—	DTP: 9.55'
MW7-10	n/a	✓	n/a	✓	—	10.41'	—	DTP: 9.07 <sup>CB.</sup> 9.06'
MW8-10	n/a	✓	n/a	✓	no	9.01'	23.29'	

Additional Comments:

\_\_\_\_\_

Notes:

\_\_\_\_\_

- (1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS:

Carrie Bondy

SUPERVISOR:

C. Bondy

DATE OF INSPECTION:

10/11/01 8:11 (6)  
(MM DD YY)

To

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
MW9-10	n/a	✓	n/a	✓	yes	9.05'	18.57'	
MW10-10	n/a	✓	n/a	✓	—	6.98'	—	DTP: trace.
MW11-11	n/a	✓	n/a	✓	no	2.12'	14.30'	
MW12-11	—	—	—	—	—	—	—	
MW13-11	n/a	✓	n/a	✓	yes	4.32'	17.75'	
MW14-11	n/a	✓	n/a	✓	yes	4.67'	16.34'	one post knocked over + damaged
MW15-11	n/a	✓	n/a	✓	yes	4.92'	17.02'	
MW16-11	n/a	✓	n/a	✓	no	4.43'	14.28'	

Additional Comments:

Notes:

- (1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## WELL INSPECTION SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS:

Corrie Bondy

SUPERVISOR:

C. Bondy

DATE OF INSPECTION:

01 10 81 116

To

(MM DD YY)

Well I.D. Number	Lock	Surface Seal	Protective Casing	Riser	Sediment	Water Level (ft. BTOC)	Well Depth (ft. BTOC)	Other Comments
TW1	na	✓	na	✓	—	9.36'	—	DTP: 9.36'
TW2	na	✓	na	✓	—	9.28'	—	DTP: trace

Additional Comments:

Notes:

- (1) Inspections will be completed monthly during operation of the Multi-Phase Extraction (MPE) System and quarterly thereafter for up to 10 years.

## GAS PROBE INSPECTION AND MONITORING SUMMARY<sup>(1)</sup>

PROJECT NAME: Former Dearborn Refining Site - 3901 Wyoming Avenue, Dearborn, Michigan

PROPERTY OWNER: City of Dearborn

INSPECTION CREW MEMBERS: Carrie Bondy

SUPERVISOR: C. Bondy

DATE OF INSPECTION: 10/10/8116 To  
(MM DD YY)

Gas Probe I.D. Number	Lock	Surface Seal	Protective Casing	Pressure Reading	Time of Reading	Measurement Method	Other Comments
GP-01	n/a	✓	n/a	0	930	Digital Manometer	
GP-02	n/a	✓	n/a	0	935		
GP-03	n/a	✓	n/a	-0.22	940		
GP-04	n/a	✓	n/a	-0.33	1400		
GP-05	n/a	✓	n/a	+0.26	1405		
GP-06	n/a	✓	n/a	-2.78	1410		
GP-07	n/a	✓	n/a	0	920		
GP-08	n/a	✓	n/a	2.2	925	↓	

Additional Comments:

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Notes:

(1) Inspections will be completed quarterly during and subsequent to operation of the Multi-Phase Extraction (MPE) System for up to 10 years.



Photo 1 – 12/16/15 Vegetation (looking south)



Photo 2 – 12/16/15 Vegetation (looking south)



## City of Dearborn Site Photographs



Photo 3 – 12/16/15 Driveway (looking west)



Photo 4 – 12/16/15 Vegetation at the Stormwater Retention Area (looking west)



## City of Dearborn Site Photographs



Photo 5 – 12/16/15 Inspection of the Former Dearborn Refining Driveway  
(looking north)



Photo 6 – 12/16/15 Inspection of the Former Dearborn Refining Driveway  
(looking southeast)



## City of Dearborn Site Photographs



Photo 7 – 12/16/15 Damaged fence on the north side boundary (looking northeast)



## **City of Dearborn Site Photographs**